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## Catch the Fishing Fever at the Refuge



Photo by Joshua Barchers/DPRA, Inc.

Fishing season has just begun and to kick off the 2005 season Rocky Mountain Arsenal National Wildlife Refuge (Refuge) is hosting a Fishing Fever event on May 14, 2005 from 9:00 a.m. to 3:00 p.m. The U. S. Fish and Wildlife Service's event is designed to give visitors of all skill levels a taste of angling at the Refuge, as well as other opportunities available to the public. The

FREE event will feature continuous wildlife tram tours throughout the day, exhibitor booths, fishing demonstrations and free fishing for both adults and children. Anglers sixteen years of age and older must have a State of Colorado fishing license to fish at the Refuge.

The Refuge's fishing season runs from April 16 - Oct. 15, 2005, starting at 8:00 a.m. until 4:30 p.m. each weekend, with several dates scheduled for fishing until sunset.

More information is available by calling 303-289-0930 and is posted on the Refuge website at <http://rockymountainarsenal.fws.gov>. ■

### MILESTONES

Comments are always welcome.  
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Photo by Josh Barchers/DPRA, Inc.

## DID YOU KNOW?

Very few trees at the Arsenal are indigenous. Most were planted. Some grew naturally along the drainages.

Visit our website:  
[www.rma.army.mil](http://www.rma.army.mil)



A 1,000-year-old bison bone and a soda bottle from the early 1900s will soon be on display at the Rocky Mountain Arsenal National Wildlife Refuge Visitor Center.

Photos by Josh Barchers/DPRA, Inc.

The Rocky Mountain Arsenal's (Arsenal) past has been revealing itself over the last two decades with the discovery of many historic and even prehistoric artifacts. Thanks to Arsenal employees as well as existing partnerships with the Colorado Museum of Nature and Science and Colorado Historical Society, many priceless artifacts have been found and preserved for future generations.

Many of the unique and more fragile discoveries soon will be on display at the Rocky Mountain Arsenal National Wildlife Refuge (Refuge) Visitor Center. The display also will include general information about where the discoveries were found and from when they originated.

For the Arsenal, prehistoric discoveries denote artifacts dating back to the pre-1700s. Historic items, on the other hand, would be those dating from the 1700s and later. Some of the prehistoric items that

soon will be on display include a 3,000-year-old corner-notched dart point and a 1,000-year-old bison bone. Historic items include an 1890s colored perfume bottle and pillboxes and soda bottles from the early 1900s.

You may wonder why such diverse artifacts have been found at the site? Prior to the construction of the Arsenal in 1942, farmers and their families lived on and worked the land. Before the homesteaders, Native Americans called the land home. Centuries ago, the Plains Woodland Native Americans lived on the land from 100 to 1,000 A.D. Their presence is still felt today with the discovery of some unique artifacts that continue to tell the stories of the past.

The Refuge's artifact display will be open to the public in May 2005. For more information about the display or visiting the Refuge, please call 303-289-0930 or visit the Refuge Web site at <http://rockymountainarsenal.fws.gov>. ■



# Five-Year Review Underway

Progress to complete the Arsenal's second Five-Year Review continues. The Arsenal has sought and received input from community advisory groups as well as other community organizations. Public notices about the first public comment period were published in several local and metro-newspapers with the comment period open from March 31 through April 29, 2005.

The purpose of the Review is to determine whether the Arsenal's cleanup continues to be protective of public health and the environment and whether it can be expected to remain protective after completion. A critical part of the review is to update any changes to standards and to determine if the remedy outlined in the Record of Decision and subsequent Decision Documents remains protective in light of these new standards.

The Review team consists of members of the Remediation Venture Office (U.S. Army, Shell Oil Co. and the U.S. Fish and Wildlife Service) as well as representatives from the Environmental Protection Agency (EPA), the Colorado Department of Public Health and the Environment, and Tri-County Health Department.

The Arsenal will hold another public comment period on the report's findings in early Fall 2005.



Notices about deadlines for comment periods and how to obtain a copy of the report will be announced in local newspapers, on the Arsenal's Web site and Community Information Line. The Review process concludes with the preparation and delivery of a final Five-Year Review report to the EPA in December 2005, for its concurrence. Five-Year Reviews at the Arsenal will be required for the foreseeable future since the cleanup approach requires landfills and consolidation areas to hold contaminated waste on site. This Five-Year Review requirement gives assurance to the community that the cleanup always will be protective of public health and the environment. ■



## Join Us! Become Involved in the Restoration Advisory Board

The Rocky Mountain Arsenal invites community members to take part in discussions about its comprehensive environmental cleanup program. Since 1994, the Arsenal has held evening Restoration Advisory Board (RAB) meetings to encourage community dialogue and input into the program.

The communities of Brighton, Commerce City, and Montbello are represented on the RAB. Arsenal representatives include the U.S. Army, Shell Oil Company, and the U.S. Fish and Wildlife Service. Regulatory agency representatives from the U.S. Environmental Protection Agency, the Colorado Department of Public Health and the Environment, Tri-County Health Department, and the City and County of Denver Department of Environmental Health also serve on the board.

Board members exchange information, ask questions and receive input about the progress of the Arsenal's cleanup program. Past discussions have covered such topics as the Five-Year Review, the Enhanced Hazardous Waste Landfill, and groundwater monitoring. The Board also takes a yearly bus tour of the site to see the cleanup program first-hand, its progress and the site's continuing transition to a national wildlife refuge.

The meetings are usually held on-site on the second Thursday of the month from 5:30 to 8:00 p.m., with a light dinner provided. All interested community members are encouraged to attend. For more information and meeting location, please call the Community Information Line at (303) 289-0136. ■

## Arsenal Ambassadors

From pre-historic tidbits to modern-day plans, the Arsenal Ambassadors are familiar with the history and current status of the site and are available to share their knowledge.

Arsenal staff is ready to meet with you or your organization anytime to share the site's story. Learning more about the Arsenal's unique history, cleanup program, and continuing transition to a national wildlife refuge may help you to better understand how the Arsenal's 27-square miles is evolving into an asset for the Denver Metro area.

Take advantage of this opportunity to learn more about the Arsenal and the Refuge by letting us share this vision with you. To request a free presentation and question and answer session, please call the community information line at 303-289-0136 or visit our Web site at [www.rma.army.mil](http://www.rma.army.mil). ■



## EMPLOYEE INNOVATIVE IDEAS Saves Millions

Six years of creative and innovative thinking have resulted in more than \$25.5 million in savings at the Arsenal and more than 660 employees participating in the Cost/Productivity Improvement Program (C/PIP) since its inception in 1999. The C/PIP was created to document and recognize Arsenal employees cost savings initiatives related to productivity, safety and quality, and to help improve the overall cleanup program.

"The primary focus of the program has always been participation and recognition. In that regard, it was our most successful year ever with the highest participation level we'd had since the program's inception," said Mark Thomson, C/PIP program coordinator.

Highlights of this year's submittals include a "Wall of Fame" located at the U.S. Fish and Wildlife Service's Visitor Center, recognizing fishing accomplishments at the site by providing the public with a place to post photographs of their trophy catch-and-release fish for all to see. Another submittal focused on more efficiently utilizing Ultra Violet treatment at the groundwater treatment plants, resulting in a cost savings of more than \$45,000 a year.

Thanks to the ingenuity of 154 employees this year, more than \$820,000 was saved in 2004. ■



# MILESTONES



Photo by Joshua Barchers/DPR, Inc.

Installation of the white, textured plastic liner on the triple-lined landfill improves quality and enhances worker safety.

## Triple-Lined Landfill Construction Scheduled for 2005 Completion

Construction on the first triple-lined Enhanced Hazardous Waste Landfill (ELF) in the country, which is located on the Arsenal, will wrap up during the 2005 construction season. Construction on the project began in 2004. The ELF is located in the north central part of the site and is the Arsenal's second on-site landfill. It is scheduled to begin operation in the spring of 2006 and will only accept waste originating from the Arsenal.

"The current Arsenal landfill, as well as most other hazardous waste landfills around the country, have a double liner system," said Leo Chen, technical representative for the Arsenal's Remediation Venture Office. Having a triple liner makes the landfill even more protective." Chen noted that the ELF would hold approximately 1 million cubic yards of waste. That's enough material to fill more than 40 percent of Denver's Pepsi Center arena.

Similar to the Arsenal's double-lined landfill, which is already constructed and operational, the ELF is being built to isolate the most contaminated waste from groundwater and other environmental pathways. Each layer of the ELF consists of three feet of compacted clay and a thick plastic liner. The plastic is rolled out to line the entire landfill and seams are heat welded (fused together with heat). Construction crews test each seam to ensure its durability and performance.

When the ELF is operational, dump trucks, bulldozers and compaction equipment will be used to place the waste. Once completed, a layered cover system will be constructed in 2008, consisting of a specialized clay liner, a layer of plastic, crushed concrete and a thick soil layer. This cover will shed water off of the ELF, prevent animals from burrowing into the cover and provide a soil layer to support vegetation growth.

The decision to construct two on-site landfills to hold contaminated soil, structures and debris from the Arsenal's cleanup projects was made by Arsenal representatives and federal, state and local regulatory agencies, with input from the public, in 1996 as part of the site's Record of Decision and was determined to be the best option to contain the waste. ■

## What Was that Sound?

Part of the Arsenal's routine and safe cleanup work includes the recovery of old munitions and munition debris. To destroy these items, explosive disposal operations are conducted on the Arsenal in a secure area, under the strict control and guidance of explosive experts, following approval by the State of Colorado. This disposal process has been in place for the past six years and the program has an impeccable safety record with no accidents occurring. It is important to note that any item suspected of containing chemical agent is never disposed of in this manner.

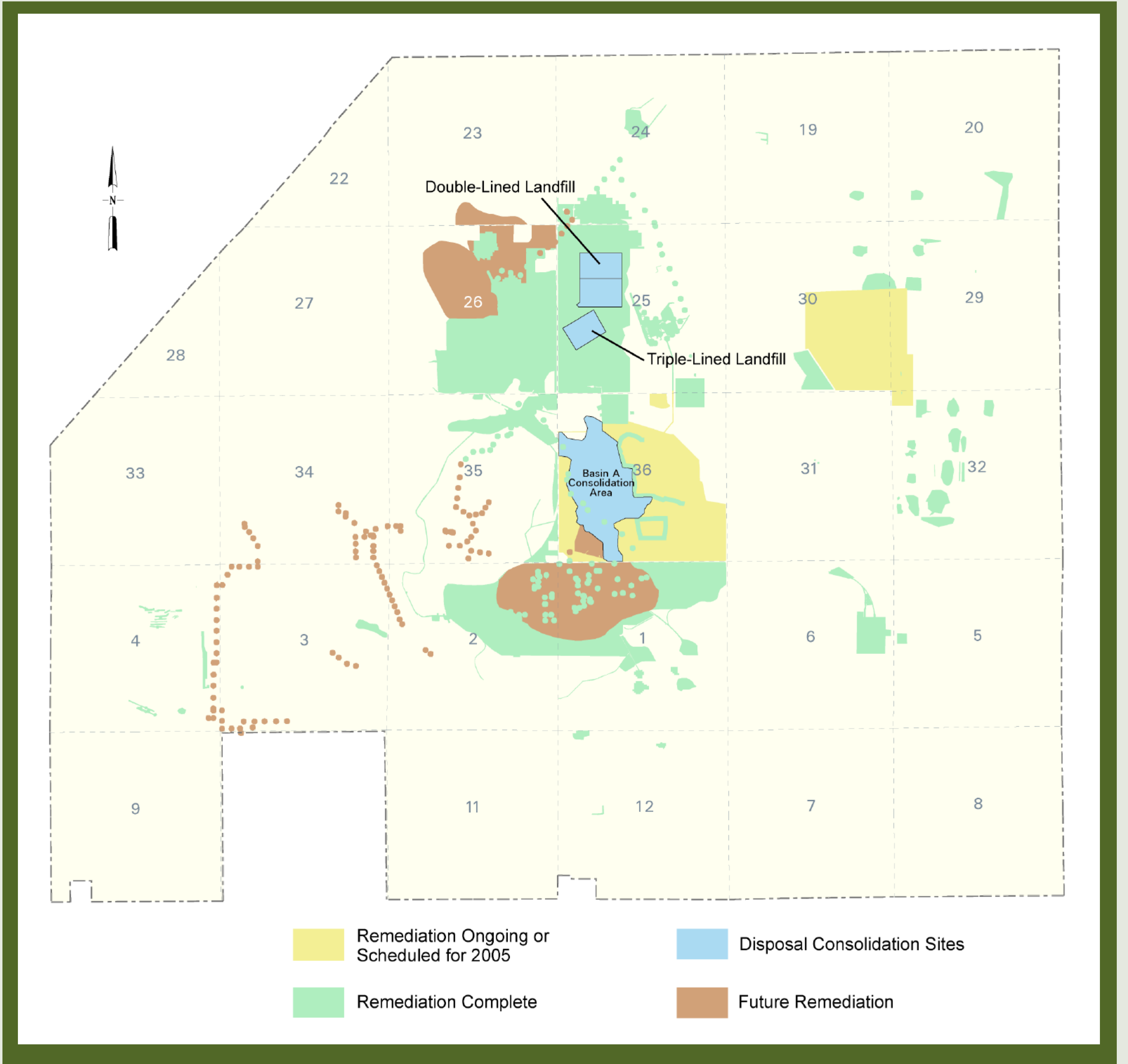
Depending on which cleanup project is in progress, these controlled explosive disposal operations can occur on a regular basis, sometimes monthly. Since this disposal process occurs under the most favorable weather conditions for the operation, it is normally not noticed by anyone outside of the designated area. However, shifts in atmospheric conditions can sometimes cause the explosion to be heard or sometimes felt in the neighboring communities.

If you have any questions about the cleanup program, please do not hesitate to call 303-289-0136 to have your questions answered. ■

## Remediation Progress Rocky Mountain Arsenal 2005

Did you know that the Arsenal is more than half way through its cleanup? Twenty-six of the thirty-one cleanup projects are either completed or underway. As the site continues to make impressive progress, the project is still on schedule and budget. More importantly, worker and community safety continue to be the Arsenal's top priority throughout all phases of the cleanup. The Occupational Safety and Health Administration (OSHA) has repeatedly recognized the Arsenal as one of the safest environmental cleanup sites in the country.

As the cleanup continues, remaining contaminated soil and structures will be placed into the Arsenal's double or triple-lined landfills, or consolidation area. Groundwater will continue to be treated. Soon, construction of protective covers over identified cleanup projects will be underway and acres of land will continue to be reseeded with vegetation to enhance the native short grass prairie ecosystem. The first of the remaining five cleanup projects, Basin F, will begin Spring 2006. The remaining projects will be implemented after Basin F is underway. The Arsenal's cleanup program is anticipated to be completed by 2011. ■



## Improving Refuge Habitat through Prescribed Burns

If smoke is seen coming from Rocky Mountain Arsenal National Wildlife Refuge in the coming months, it's likely a result of the U.S. Fish and Wildlife Service's (Service) prescribed burn program.

"The Service conducts prescribed burns at the site as part of native prairie restoration," said Lorenz Sollmann, service refuge operations specialist and fire management officer. According to Sollmann, prescribed burns aid restoration by stimulating native plant growth, recycling nutrients, and eliminating non-native plants.

The site's smoke permit allows prescribed burning from March 1st until October 31st, but the planning goes on year-round. There is little to no burning during the summer months, which is considered wildlife nesting season. Every plan is devised with the safety of the surrounding community and the firefighters as top priority. Adams County firefighters have been invited to take part in this year's burns, which could provide a valuable training opportunity for members of the all-volunteer crew.

Public notification of an intended burn is provided through several media channels a week or two in advance of a burn, as well as on each burn day.

For more information about prescribed burns at Rocky Mountain Arsenal National Wildlife Refuge, contact Lorenz Sollmann, Refuge Fire Management Officer, at 303-289-0927. ■



Photo by Bruce Hastings/USFWS

A prescribed burn takes place as part of the site's native prairie restoration.